

ABSTRACT

Disclosed are peptide and DNA compositions surprisingly found to be effective in generating immune responses against the pathogenic fungi *Coccidioides spp.*, the causative agents of coccidioidomycosis and Valley Fever. The invention thus provides peptides and DNA constructs, combinations and related biological compositions, and prophylactic and therapeutic methods of using such components to generate effective immune responses against *Coccidioides spp.*, including *C. immitis*.